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APPLICANT : TOSHIBA CERAMICS CO LTD;

INVENTOR : ABE SHIGERU;

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TITLE : PURIFICATION OF QUARTZ GLASS

ABSTRACT : PURPOSE: To obtain a quartz glass resistant to devitrification and deformation even after the use over a long period.

CONSTITUTION: A solid quartz glass is produced by melting and solidifying a natural quartz crystal. A DC voltage of 10-50kV is applied to the solid quartz glass under heating to effect the migration of alkali metals and copper in the solid quartz glass and obtain a quartz glass having alkali metal (Na, K and Li) contents of ≤ 0.5 ppm each, a copper content of ≤ 0.03 ppm and a viscosity of $\geq 10^{12}$ poise at 1200°C.

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